Internet's Islamic Information Credibility Scale (IIICS)

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Abstract

The present research develops and validates a new scale that measures Internet information credibility from Islamic perspective. The content domain for this measure was developed based on interviews with Islamic scholars, and previous literature on credibility, and empirically tested using a large samples of 1180 Internet users qualified in Islamic studies. Eight dimensions extracted from 85 developed items using exploratory factor analyses and namely: visual appeal, source-writer relationships, authentic source, writer's moral, web reputation, writer's integrity, writer's identity, and writer's reliance. The measurement model of multidimensional scale was validated using Structural Equation Modeling on AMOS Version 18. Thus, the re-specified model produced the Internet's Islamic Information Credibility Scale with not only the content validity, but also displays the construct reliability, convergent validity, and discriminant validity.

Keywords: information credibility, religious, web sites, Structural Equation Modeling.

Introduction

Information is one of the largest commodities openly and widely distributed via web. The dependency on the Internet as a source of information is growing exponentially for products, services and various information (Ibrahim, Noor, & Mehad, 2008). Currently, web users shows high tendency to surf information on health, politics, financial, legal and, religion (McKnight & Kacmar, 2006).

Studies about religion on the Internet have been examined seriously at the end of 1999. At that time, the term online religion and religion online have been used to distinguish between the act to use web interactively

(online religion) and web as a medium to disseminate information (religion online) (Helland, 2000, 2005). As religion continues to foster and expand its role in the lives of the vast majority of the world's population, and the increasingly accesses to Internet and make use of Computer Mediated Communication (CMC) technologies, and as the majority of the world's religious traditions continue their migration online, religion on the Internet has become an increasingly important dimension of CMC research (Campbell, 2005; Ess, Kawabata, & Kurosaki, 2007).

A study on Islam and the Internet is still at its infancy stage compared with other religions especially Christian (Campbell, 2005). In Southeast Asia, how Islam, for example, manifests itself online in such multicultural states is markedly different from its manifestations in other Islamic countries. Demographics also play a critical role among older and less Internet-savvy generations than younger and more Internet-savvy generations (Ess, et al., 2007). Therefore, by understanding the needs of Internet users and being able to capture their opinions towards the information provided in Islamic oriented web sites are essential for Islamic oriented web success.

However, due to the anonymous nature of such technology, the reliability and authenticity of information received by those seekers of Islamic knowledge can be problematic. To some extend, it's hard to make distinction between information (about Islam) and true knowledge with some of the inauthentic Islamic sites that disseminate and communicate information pertaining to Islam. Hence, researchers argue that there is a need to monitor information on Islam so that fabricated and misleading information can be easily identified.

For what ever reason Muslims use Internet, the big issue is when people come upon a new fact or obtain information about Islam from the Web, can they trust what they have found? Which sites is considered credible enough in representing information about Islam? How do we measure the credibility of Islamic information on Internet? And is there any measurement scale that we can use as a guidance to verify these information? These questions lead to the discussion of this paper in order to develop an information credibility scale for Internet from the Islamic perspectives. In other words, this scale is focusing on measuring Islamic information credibility on the web.

Credibility

Credibility has been examined across a number of fields ranging from communication, information science, psychology, marketing, and the management sciences to interdisciplinary efforts in human-computer interaction (HCI) (Rieh & Danielson, 2007). Each field has examined the construct and its practical significance using fundamentally different approaches, goals, and presuppositions, all of which results in conflicting views of credibility and its effects. Disciplinary approaches to investigating credibility systematically developed only in the last century, beginning within the field of communication.

A landmark among these efforts was the work of Hovland and colleagues (Hovland, Janis, & Kelley, 1953; Hovland & Weiss, 1951), who focused on the influence of various characteristics of a source on a recipient's message acceptance. This work was followed by decades of interest in the relative credibility of media involving comparisons between newspapers, radio, television, and the Internet (Meyer, 1974; Newhagen & Nass, 1989; Slater & Rouner, 1996; West, 1994). Communication researchers have tended to focus on sources and media, viewing credibility as a perceived characteristic.

Within information science, the focus is on the evaluation of information, most typically instantiated in documents and statements. Here, credibility has been viewed largely as a criterion for relevance judgment (Barry, 1994; Bateman, 1999; Cool, Belkin, Frieder, & Kantor, 1993; Park, 1993; Schamber, 1991) with researchers focusing on how information seekers assess a document's likely level of quality (Liu, 2004; Rieh, 2002; Rieh & Belkin, 1998). This brief account highlights an often implicit focus on varying objects of assessment among fields and not merely variance in the relevant unit of analysis from one study to the next. A field's perspective may for a time be primarily focused on a source, medium, or type of information. Each discipline recognizes that the credibility of sources, media, and information are fundamentally and intimately linked, but differences in implicit primary interest or focus have had, we believe, profound effects on the direction of credibility research.

Information Credibility

Rieh has examined the problems of information quality and authority in Web searching by identifying the factors influencing people's judgments of information (Rieh, 2000, 2002; Rieh & Belkin, 1998, 2000). She also found that source credibility were the primary criteria people used when making judgments on information quality on two different levels: institutional and individual. The Web users paid more attention to institutional authority, giving greater credence to academic and governmental institutions. They also took into account the affiliation of the author/creator, assigning higher levels of authority to professional experts such as professors, doctors, and librarians. Rieh's research indicates that the range of evidence people employ in ascribing source authority is much broader in the Web context than in the print realm. Moreover, people depend upon such judgments of source authority and credibility more heavily on the Web than in the print environment.

There are extensive literatures on criteria in evaluating the information credibility on Internet. Among the criteria that have been suggested are accuracy, authority, currency, purpose (Brandt, 1993; O'Neil, 2002; Tillman, 2003), comprehensiveness, currency (Williams & Nicholas, 2001) and audience (Adams & Clark, 2001), maintenance of a source, accessibility of a source, cost, copyright, reliability of access and ease of finding sources (Cooke, 1999), usability (O'Neil, 2002), affiliation, stability and organization of content (Lamb, 2004), author identity and objectivity, content, form, and appearance (Perry & Schneider, 2000). However, these criteria were solely based on the psychology and sociology aspects of human, and not from religious aspects that may slightly different especially from Islamic perspectives (Azimi Hamzah, et al., 2007).

Information Credibility from Islamic Perspectives

Religion is the essence of Muslim identity. This applies to all Muslims whether they are devoutly religious believers or live in large secular societies (Hassan, 2007). Islamic knowledge derived from two important sources – Al-Quran and Al-Hadith. Both are guidance to every Muslims in leading to the right path (Al-Qardhawi, 2000).

About information credibility, Allah have stated clearly in Al-Quran:

> "O believers! If a wicked person brings you a piece of news, inquire first into its truth, lest you should wrong others unwittingly and repent of what you have done."
>
> (Al-Hujurat: 6)

This verse provides a clear guidance to promote the harmonious relations among mankind. All Muslim should think and be careful before taking any action after received any news or information. They should act based on the true information because wrongly action taken might harm innocent people in ignorance and later come to make us regret.

From Hadith knowledge, Islamic scholars have taken action in order to ensure the authenticity of Hadith that we received from Rasullullah (s.a.w) by inventing the area of studying Hadith called *'Ulum af-Hadith* or science of Hadith which is based on narrator's factor to categorize Hadith into four categories – Sahih, Hasan, Da'if, and Maudu'(Nor Shahriza & Norzelatun Rodhiah, 2005). This method is the best guidelines in order to evaluate other information in our daily life.

Al-Shafi'e stated the following requirement in order for Hadith to be accepted:

> "Each reporter should be trustworthy in his religion; he should be known to be truthful in his narrating, to understand what he narrates, to know how a different expression can alter the meaning, and report the wording of the Hadith verbatim, not only its meaning. Moreover, he should be a good memorizer if he happens to report from his memory or a good preserver of his writings if he happens to report from them. He should not be a *mudallis*, who narrates from someone he met something he did not hear, nor should he report from the Prophet contrary to what reliable sources have reported from him. In addition, the one who is above him should be in the same quality, until the Hadith goes back uninterrupted to the Prophet or any authority below him" (Hasan, 1994: 44-45)

Siddiqi (1996: 72-73) stated:

> "In order to check the *isnad* (the chain of transmitters), it is necessary to know the life and the career as well as the character of the various persons who constitute the various links in the chains of the different *isnads*. And in order to understand the exact significance of the *matan* (text), and to test its genuineness, it is necessary to know the meaning of the various expressions used (some of which are rare and out of common use), and also to learn its relation to the text of the other traditions (some of which may be either corroborated or contradicted by it)".

Since Islam is promoting the global perspective as a way of living, the Al-Quran verse (Al-Hujurat: 6) and the rules in assessing the quality of a Hadith, it is viable to develop scale to investigate the information credibility on Internet from Islamic scholars perspectives.

Methodology

This study consists of two phases, the scale development and scale validation. The scale development uses qualitative oriented method to get a list of Internet information credibility measures from Islamic perspective before tested empirically using quantitative exploratory factor analysis. While the scale validation uses the confirmatory factor analysis to test the hypothesized measurement model to achieved the goodness of fit model.

The design

The scale development phase is divided into two continuous stages. The first stage uses the in-depth interviews with Islamic scholars who have skills and experience on using Internet for searching Islamic content. The second stage uses exploratory factor analysis (EFA) to empirically test using adequate samples of users to extract the categories of factors from the list of operationalized concepts gained from the first stage. This approach is used to measure the subjective Internet information credibility as perceived by the users with Islamic studies background based on the degree of reliability and validity. The scale validation phase use confirmatory factor analysis (CFA) to validate the extracted

factor in EFA in a hypothesized measurement model.

The sampling

Five Islamic scholars were asked to list the entire credibility element to judge Internet content based on their Islamic knowledge and their practical use. The selection of these experts was also based on their willingness to participate during the period of this study. Next, Islamic teachers from J-QAF (Jawi, Al-Quran, Arabic Language, and Fardhu Ain) field pursuing Teacher Training Course for Graduates (KPLI) during school-break course in every two Institute of Teacher Education Malaysia from five regions in Malaysia served as the samples to empirically test the scale. The concept gained from the interview was then transformed to list of items to be used in the exploratory factor analyses. The sample size used in this study was based on the calculation of the effective sample size for exploratory factor analyses. The calculation of 10 samples per items to achieve the practically significant level of the items (Hair, Black, Babin, Anderson and Tatham, 2010) was used. However, researcher decided to collect an extra 300 respondents to use as the sample in validation stage.

Questionnaire

The questionnaire used for empirical test consists of two parts. Part A lists the 85 items gathered from in-depth interview with Islamic scholars to measure the Internet information credibility from the Islamic perspectives. The Likert scale of 5 point interval-scale ranging from 1-strongly disagree to 5-strongly agree was used. Part B, C and D consists of variables from Technology Acceptance Model but was not reported here since it is not the objective of this paper while Part E consists of the demographic questions.

Data Collection Procedure

One thousand five hundred set of questionnaires were posted to enumerators among J-QAF instructor in the randomly selected Institute of Teacher Education Malaysia. They were asked to administer the questionnaire on randomly 150 respondents in two weeks period. The large quantity of questionnaire was sent to ensure high return rate. A response rate of about 80% was collected back. One thousand two

hundred questionnaires have been received after data collection period ended (Aqeel Norri Mohamed, 2004). After a thorough checking, one thousand one hundred and eighty questionnaires were used for data analysis.

Data Screening and Analysis

The 1180 dataset were coded using SPSS version 14. The scale items were analyzed using principal component exploratory factor analysis (EFA) with varimax rotation in SPSS to examine their dimensionality. Eight factors extracted from the EFA namely as visual appeal, source-writer relationships, authentic source, writers moral, web reputation, writer's integrity, writer's identity, and writer's reliance (see Table 1). All factors were transformed into measurement model and validated using confirmatory factor analysis (CFA) using AMOS version 18. During the data screening process before CFA, all items shows z-score skewness over 1.96 is considered as univariate outlier or non normal data and transformed using square root or natural logarithm (Hair, Black, Babin, Anderson, & Tatham, 2010). Several statistical tests in Structural Equation Modeling (SEM) was used to show the strength of the scale such reliability test (based on composite reliability), and validity test (using convergent validity, and discriminant validity). The hypothesized measurement model was modified during the modification index to achieve a final measurement model with goodness of fit.

Goodness of Fit Indices

In SEM, the chi square (χ^2) is the statistical measure of difference used to compare the observed and estimated covariance matrices. Thus, chi square test is used to test whether the model has a good fit or not. The chi square test is Type II error similar to Levene's Test and Kolgomorov Smirnov and Shapiro–Wilk normality test in SPSS. When the model has a good fit, it suggests that: (1) the overall model can predict the observed variance-covariance matrix of the dataset; and (2) the model fit into the existing observed variance-covariance matrix of the dataset. The P-Value should above 0.5 to asserted Null Hypothesis.

The Goodness of Fit Indexes of hypothesized model generally

represented based on Absolute Fit Index (AFI), Incremental Fit Index (IFI), and Parsimonious Fit Index (PFI). AFI is used to determine the degree to which the overall model (structural or measurement) predicts the observed variance-covariance or correlation matrix. It does not determine whether the model fit is better or worse. If AFI is not met, the model is said to be unable to predict the variance-covariance or correlation matrix of the dataset. Goodness of fit indexes (GFI) (the acceptable value is above 0.90 or 0.95) and root mean square error of approximation (RMSEA) (the acceptable value is above 0.30 and under 0.08) is commonly used to demonstrate the AFI. IFI is use to attain the minimum requirement of a good and realistic model. Tucker Lewis Index (TLI), Normed Fit Index (NFI) and Comparative Fit Index (CFI) commonly used to represent IFI. The acceptance value for TLI and NFI is above 0.90 while for CFI the acceptance value is between 0 and 1 (the higher the better). PFI is used to determine whether the model fit has been achieved by over fitting the model with too many coefficients. The best parsimony requires the best fit model with the highest DF (which is something difficult to achieve). Normed chi-square (CMIN/DF or Ratio) and Parsimonious Normed Fit Index (PNFI) is commonly used to represent PFI. The acceptable value for Ratio is between 1 and 2 while the higher PNFI value the better (Garson, 2009).

Results

Profile of the Respondents

The samples profile shows that the majority of the respondents were female (63.8%). Aged ranged from 23 to 36 with the average being 27.37 year. Nearly half have experienced using Internet between four to six years (44%). They tended to spend between half an hour to one hour on the web per week (22.3%), searching for Islamic content when needed (38%), and were likely to search on topic about Prophet Muhammad (s.a.w).

Scale Development

Eighty five items was extracted from the in-depth interview with Islamic scholars. The list of items demonstrates the conceptualization on Internet information credibility from Islamic perspectives. The

judgment was based on their experts in religious aspect, the experience, and practical use of Internet for searching Islamic content. A total agreement more than 80% was achieved among the scholars on for these elements. This conceptualize item than transform into general statements for empirical testing. A total of 85 elements then transform to a statements with 5 point Likert scale measurement for empirical study.

Scale purification

The scale items were analyzed using principal component exploratory factor analysis with varimax rotation to examine their dimensionality. The Kaiser-Meyer-Olkin value was 0.97, exceeding the recommended value of 0.6 and Bartlett's Test of Sphericity reached statistical significance, supported the factorability of the correlation matrix (Pallant, 2007; Tabachnik & Fidell, 2007). Based on the Kaiser criterion, all components extracted with eigenvalue above 1 were retained, even though the screeplot displays the change in the shape of the plot is after the second component. This decision is based on the research context to explore the underlying dimensions related to the reliability of the Islamic content on Internet. From 85 tested items, only 58 items distributed into eight factors with factor loadings greater than 0.5 were retained to establish the practically significant development (Hair, et al., 2010). To reduce redundancy and naming the themes, expert interviews were then conducted to access semantic content of the items. Those items that best fits the definition of Islamic perspective and credibility literature were retained. All corrected item-total correlation for all factors exceeded 0.6. The factor solution is presented in Table 1. Each construct shows Cronbach' Alpha over 0.8 which is above acceptance value of 0.7 (Hair, et al., 2010).

Table 1: Factor Loadings of the 58 scale items retained

Items	F1	F2	F3	F4	F5	F6	F7	F8
F1-Visual Appeal								
Display prayer schedule	0.791							

Items	F1	F2	F3	F4	F5	F6	F7	F8
Display Islamic calendar	0.789							
Easy to surf	0.785							
Islamic big ceremony dates	0.774							
Display Islamic icons	0.757							
Islamic product advertisement	0.756							
Islamic activities notification	0.750							
Have a professional layout	0.746							
Al-Quran verses translation	0.660							
Provide Q&A on Islamic matters	0.652							
Provide message about Islam	0.628							
Provide Al-Quran Verses	0.627							
Al-Quran & Hadith quotations	0.627							
Link to establish Islamic websites	0.616							
Have Sahih Hadith	0.589							
Have famous verse interpretation	0.556							
F2-Source-writer relationships								

Items	F1	F2	F3	F4	F5	F6	F7	F8
Have previous information		0.695						
Have meet the writers		0.695						
Have link to original source		0.683						
Have complete references		0.669						
Know the institution owns the site		0.626						
Can refer the reference		0.613						
Research based Information		0.596						
Owns by famous Islamic scholar		0.546						
Highlight by famous provider		0.512						
F3-Authentic Source								
Quote from famous scripture			0.650					
Census among Ulama			0.642					
Word by famous Islamic Scholar			0.633					
Writing based on Al-Quran			0.621					
Writing based on Al-Hadith			0.613					
Information based on clear scripture			0.569					
F4-Writer's Moral								

Items	F1	F2	F3	F4	F5	F6	F7	F8
Honesty				0.663				
Unbiased				0.634				
Moral				0.632				
Originality				0.603				
Content knowledgeable				0.561				
Information looks authentic				0.542				
Answer from well-known Ulama				0.518				
Referred by majority user				0.501				
F5-Web reputation								
Site has high reputation					0.676			
Authorities official sites					0.667			
Authentic URL					0.634			
Physically available owner					0.632			
F6-Writer's Integrity								
No intention to support employers						0.647		
Not working with influence person						0.627		
Knowledgeable						0.583		
Well-verse in Islamic matters						0.566		
Word based on Quran & Hadith						0.532		

Items	F1	F2	F3	F4	F5	F6	F7	F8
Experience handling Islamic issues						0.526		
Credibility in Islamic matters						0.517		
F7-Writer's Identity								
Name available							0.777	
Personal info available							0.752	
Has title							0.657	
Belong to organization							0.641	
F8-Writer's Reliance								
Well-verse in Islamic issues								0.601
Views align with Islamic thought								0.584
Integrity								0.535
Responsibility								0.527
No Of Items	16	9	6	8	4	7	4	4
Reliability (Cronbach Alpha)	0.949	0.915	0.912	0.879	0.857	0.844	0.813	0.832
Eigenvalue	33.266	6.329	2.695	2.594	2.245	1.783	1.426	1.201
% of variance explained	39.137	7.446	3.170	3.052	2.641	2.098	1.678	1.413

Scale Validation

The validation sample was used to validate the Internet's Islamic information credibility scale obtained from the development phase. Three hundred and thirty respondents randomly extracted from 1180 samples collected in development phase were used in the confirmatory

factor analysis phase to validate the scale.

The Measurement model

The proposed hypothesis measurement model (Figure 1) was tested using Structural Equation Modeling based on Analysis of Moment Structure (AMOS Version 18). According to Novak et al. (2000), there is a lack of genuine knowledge among Internet practitioners about the factors that bring about effective interactions with the web. This lacking is also happened to Islamic information's on the web (Azimi Hamzah, et al., 2007). In this study the Internet's Islamic information credibility scale which consists of the relationships between the constructs and the indicators used to measure them and was tested as second order reflective indicator. The measurement model is analyzed and interpreted based on the convergent validity, construct reliability, and discriminant validity. The sequence ensures that the constructs measures are valid and reliable before attempting to draw conclusions regarding relationships among constructs (Hair, et al., 2010).

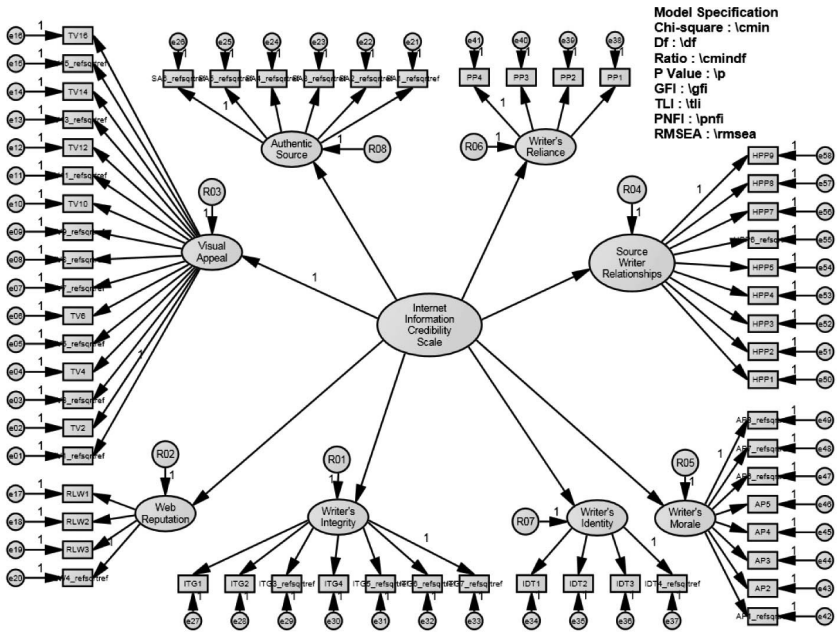

Figure 1: Hypothesis measurement model - internet's Islamic information credibility scale

Goodness of Fit of the Measurement Model

The 58 items derived from EFA in development phase were subjected to a series of eight factor confirmatory factor analyses to examine more closely the scale psychometric properties. During each iteration, the compound item (loaded on each factor, as suggested by the modification index) with the lowest squared multiple correlation coefficient (SMC) (individual item reliability) was dropped. In an attempt to carry forth enough items to the validation study to ensure valid construct measurement, and because items would be subjected to additional purification analyses in the validation study, the iteration procedure stopped at the point were all the items remained in the model were sufficiently significant and the overall model fit were acceptable. The basic generated model (Figure 2) produced the chi-square of 4655.504 (d.f = 1587, P = 0.000), a goodness of fit statistic (GFI) of 0.612, a tucker lewis index (TLI) of 0.771, ratio of 2.934, PNFI of 0.673 and RMSEA of 0.077. Since the generated model is not the fit model, than the deletion process in modification index was perform to achieve the requirement of producing a model with a goodness of fit level.

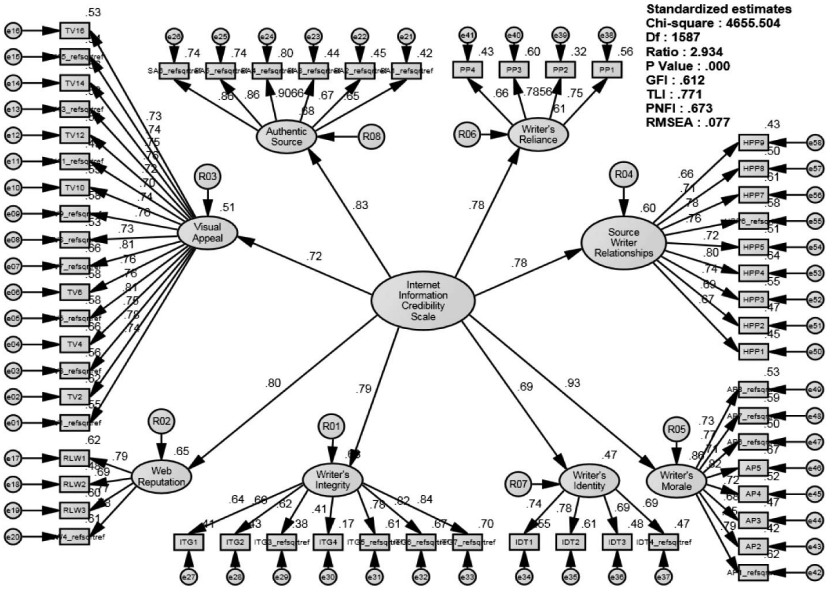

Figure 2: Generated measurement model – internet's Islamic information credibility scale

The final result of modification index is shown in Figure 3. The purification process resulted in retaining five latent variables and 13 observe variables - Visual Appeal (2 items), Information Authentic (3 items), Writer's Reliance (3 items), Source-Writer Relationship (3 items), and Writer's Integrity (2 items) (see Table 2). The final generated model achieved all the requirement of goodness of fit compared to the hypothesized model. To free the re-specified from multivariate outliers, the assessment of normality test was performed. The non normal data detected when Mardia Coefficient (CR) value is above 2.58.

The Mahalanobis Distance observations shows 17 case have P1 value under 0.05 (case 58, 201, 300, 134, 198, 269, 121, 97, 196, 31, 313, 135, 206, 306, 180, 263, and 255) which considered as multivariate outlier and were deleted. Figure 3 shows the final measurement model with chi square value is 72.587 (d.f = 57, P=0.080), GFI = 0.967, TLI = 0.991, PNFI = 0.710, and RMSEA = 0.030, which is achieve the goodness of fit level. Finally, the evaluation of the re-specified measurement model, the bootstrap resampling procedure was applied to test the significance of the path coefficients. A Bollen-Stine bootstrap testing the null hypothesis that the model is correct (p=0.275). It shows that the re-specified model is fit better in 363 bootstrap samples and it fit worse or failed to fit in 137 bootstrap samples. Thus the use of 330 samples on this model is suitable.

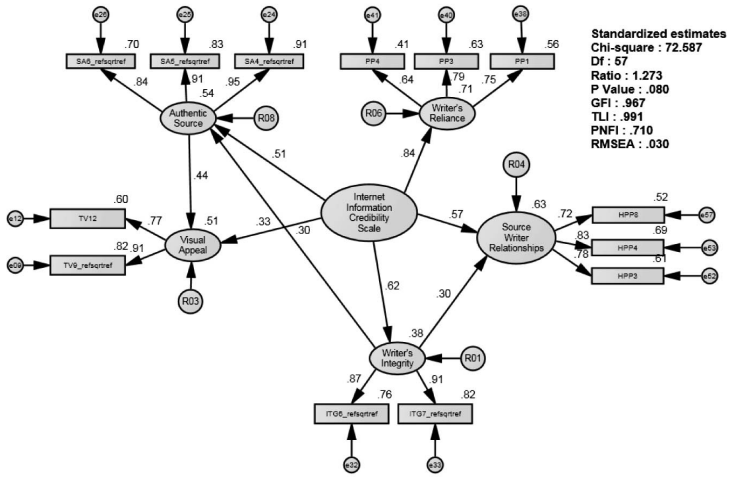

Figure 3: Re-specified measurement model – internet's Islamic information credibility scale

Table 2: Final confirmatory factor analysis results of variables

Variable	Code	Attributes	Factor Loadings
Authentic Source (3 items)	SA6_ refsqrtref	The information was based on clear scripture	0.848
	SA5_ refsqrtref	The writing was based on Hadith	0.885
	SA4_ refsqrtref	The writing was based on Al-Quran	0.944
Visual Appeal (2 items)	TV9_ refsqrtref	Provide Al-Quran verses translation	0.87
	TV12	Provide Al-Quran Verses	0.747
Writer's Reliance (3 items)	PP4	The writer's shows the responsibility in writing	0.618
	PP3	The writer's has integrity to write	0.78
	PP1	The writer's is well-verse in Islamic issues even though he/she has no formal Islamic Education)	0.751
Source-Writer Relationship (3 items)	HPP8	The writings is from web owns by famous Islamic scholar	0.719
	HPP4	The writer's have complete references	0.804
	HPP3	The writer's have link to original source	0.764
Writer's Integrity (2 items)	ITG7_ refsqrtref	Writer's has credibility in Islamic matters	0.905
	ITG6_ refsqrtref	Writer's has an experience in handling Islamic issues	0.866

Convergent Validity

Convergent validity shows the extent to which indicators of a specific construct converge a high proportion of variance in common (Hair, et al., 2010). This validity is measured using standardized factor loadings. The factor loadings of latent to observe variable should be above 0.50 (Byrne, 2001, 2006; Hair, et al., 2010). The result of the confirmatory factor analysis in Figure 2 shows that the standard regression weight or standard factor loadings of all observed variables (58 items from exploratory factor analysis in development process) in first order are adequate ranging from 0.562 to 0.896 except variable ITG4 (0.408). However, this variable is included in subsequent analysis and this spurious item will be self-deleted during modification indices. The second order factor loadings also have the value above 0.5 ranging from 0.687 to 0.930. This finding indicates that the constructs conform to the construct convergent validity.

Construct Reliability

In SEM, composite reliability was used to measure the reliability of a construct in the measurement model. While, Cronbach's alpha (in SPSS) only measures the internal consistency of variables measuring the construct in a summated scale, composite reliability offers a more retrospective approach in overall reliability estimates consistency of the construct itself including stability and equivalence of the construct (Hair, et al., 2010). The formula to calculate composite reliability is $(\Sigma\text{standardized loading})^2 / (\Sigma\text{standardized loading})^2 + \Sigma\varepsilon j)$ (where ε = error variance and Σ is summation). Table 3 shows the result of the calculated composite reliability (CR) to support construct reliability. The reading of composite reliability of all latent variables is above 0.70 suggests that all latent variable have good reliability.

Table 3: Composite reliability and variance extracted of observe variables

Observe Variable	Std. Loading	SMC (R^2)	Error Var εj	Composite Reliability	Variance Extracted
SA6_refsqrtref	0.848	0.719	0.003	0.999	0.997
SA5_refsqrtref	0.885	0.784	0.003		
SA4_refsqrtref	0.944	0.891	0.002		
Total	2.677	2.394	0.008		
TV9_refsqrtref	0.87	0.756	0.006	0.978	0.956
TV12	0.747	0.557	0.054		
Total	1.617	1.313	0.060		
PP4	0.618	0.382	0.051	0.971	0.919
PP3	0.78	0.608	0.048		
PP1	0.751	0.564	0.038		
Total	2.149	1.554	0.137		
HPP8	0.719	0.517	0.048	0.975	0.930
HPP4	0.804	0.646	0.041		
HPP3	0.764	0.584	0.043		
Total	2.287	1.747	0.132		
ITG7_refsqrtref	0.905	0.82	0.004	0.997	0.995
ITG6_refsqrtref	0.866	0.75	0.004		
Total	1.771	1.570	0.008		

Discriminant Validity

Discriminant validity shows the extent to which a construct is truly distinct from other construct (Hair, et al., 2010). A commonly used statistical measures of discriminant validity is comparing the Average Variance Extracted (AVE) value with Correlation Squared (Fornell & Larcker, 1981). To satisfy the requirements of discriminant validity, the AVE of two constructs must be more than the squared of the correlation between the given two constructs. The formula to calculate discriminant validity is Variance Extracted (VE) = (Σstandardized SMC^2 / Σstandardized SMC^2 + Σεj) (where ε = error variance and Σ

is summation). Table 3 shows the result of the calculated variance extracted while Table 4 shows the calculation of AVE. Each AVE value in Table 3 is found to be more than correlation square in Table 5, thus discriminant validity is supported or multicollinearlity is absent (Byrne, 2001).

Table 4: Average variance extracted (AVE) matrix of measurement model

Latent Variable	1	2	3	4	5
Authentic source (1)	1.000				
Visual appeal (2)	0.976	1.000			
Writer›s reliance (3)	0.958	0.938	1.000		
Source writer relationship (4)	0.963	0.943	0.962	1.000	
Writer›s integrity (5)	0.996	0.976	0.957	0.962	1.000

Table 5: Correlation and correlation square matrix of measurement model

Latent Variable	1	2	3	4	5
Authentic source (1)	1.000 0.639				
Visual appeal (2)	(0.408) 0.531	1.000 0.526			
Writer›s reliance (3)	(0.282)	(0.277)	1.000		
Source writer relationship (4)	0.569 (0.324)	0.463 (0.214)	0.632 (0.399)	1.000	
Writer›s integrity (5)	0.567 (0.321)	0.439 (0.193)	0.483 (0.233)	0.646 (0.417)	1.00 0

Note: Correlation is significant a 0.01 level (2 tailed), values in brackets indicate correlation squared

Conclusion

Internet has the potential to transform various aspects of religious understanding and expression. It also has the power to enable elements within the population to discuss aspects of religious interpretation and authority with each other. It is an opportunity to consult with authorities both from traditional and non traditional centers, in some cases subverting what were conventional channels for opinions on religious issues. The questions needs to be asked as to whether this enhances or challenges traditional forms of knowledge about Islam. One difficulty is clearly measuring the effect Internet may have, given the substantial range of sites and contents. As access levels rise, in some contexts websites could develop to become a significant channel of information and a means of reinforcing or developing identity for Muslims individuals and organizations.

Therefore, through a rigorous scale development procedure from Islamic perspective and incorporating with the web characteristics, the proposed scale communicates effectively and makes the proposed scale empirically relevant. This study reported here involving large samples of 1180 Islamic web users as participants. The results indicate that evaluative responses among Islamic users on Islamic information online have retained five discriminant aspects that contributes to the development of Internet Information Credibility Scale that is authentic source (R^2=0.54), visual appeal (R^2=0.51), writer's reliance (R^2=0.71), source-writer relationship (R^2=0.63), and writer's integrity (R^2=0.38).

The Internet information credibility scale achieved both convergent and discriminant validity through the systematic examination. The proposed scale is grounded in credibility research and provides conceptual links to the literature. The Internet information credibility scale has good psychometric properties and easily administrated. It consists of five dimensions that can be captured using 13 items.

Suggestion For Future Research

Future research shall investigate the model in a different setting. The total of 85 items which has been developed from Islamic scholar perspective should be constructed and face validate with more scholar in order to reduce the items. New settings which include different

level and categories of online Islamic user should be explored. By understanding various group of Islamic users, we can developed a more extensive model.

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